PDR RID Report

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Document Presentation - Day 2
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Review SDPS
Originator Ref IVV-GR-05
Priority 2

Category Name User & Algorithm Models
Actionee HAIS
Sub Category
Subject Analysis-service invocations

Description of Problem or Suggestion:

The purpose of the analysis is to estimate the loading of the system due to the service invocations. Analysis on the relative service invocations has been presented. How is the loading of service invocations on the system (at any given time) obtained? Did the analysis also consider loading (on the system) due to invocation of each of the 15 service types for estimating the total loading of the system?

Originator's Recommendation

Please clarify.

GSFC Response by:
GSFC Response Date

HAIS Response by: Eisenstein
HAIS Schedule
HAIS R. E. Jarvis/Tyahla
HAIS Response Date 5/16/95

The relative service invocation distribution presented at PDR was derived from the 27 detailed science user scenarios and the total estimated number of science users. The detailed calculations can be found in the document ECS User Model Inputs to System Performance Model: Methodology and Results (L. Tyahla, January 31, 1995, Doc # 160-WK-001.001). The loading of service invocations at a particular point in time can be obtained by taking the number of service invocations per minute at that point in time and applying the relative distribution of the service types in conjunction with the amount of processing that each type of service invocation requires.
For example, assume that at time t, the overall service request rate is 30/minute. In one minute, there will be 30 services invoked. These 30 services would be distributed by type according to the distribution presented at PDR - thus 40% (or 12) of the services invoked are in response to a request to "inspect" either text or data; 2% (or 0.6) of the services invoked are in response to a request to perform a "simple search", etc. One can then assign an amount of processing to be associated with the fulfillment of these service requests. Then, for each type of service, the amount of processing required is multiplied by the number of times the service is invoked during the minute. These values are then summed over the 15 service types, resulting in a total processing load resulting from user queries for that particular point in time.

Status **Closed** **Date Closed** **6/8/95** **Sponsor** **Daly**

****** **Attachment if any** ******